

Appl. No. 10/653,882  
Amendment dated: January 18, 2006  
Reply to OA of: October 18, 2005

### **REMARKS**

Applicants submit herewith this Amendment as the required submission with the Request for Continued Examination (RCE).

Applicants have amended the claims to more particularly define the invention taking into consideration the outstanding Official Action. Applicants have amended claims 1 and 5 by using the expression "consisting essentially of" thereby excluding the hydrofluorocarbons in the plasma composition. This amendment eliminates the Examiner's concern that hydrofluorocarbons are not excluded by the present claims and obviates the outstanding rejections. Since this amendment further limits the claims and would be considered to introduce a new issue for consideration, a RCE has been filed concurrently herewith to allow entry of the amendment in this application. All of the claims now remaining in the application, claims 1-8, are in full compliance with 35 U.S.C. 112 and are clearly patentable over the references of record. pending in the present application.

The rejection of claims 1-3 and 5-7 as unpatentable under 35 U.S.C. 103(a) over US Patent No. 6,890,863 (referred to as '863 hereinafter) in view of US Patent No. 5,010,032 (referred to as '032 hereinafter) for the reasons as discussed in the previous office action has been carefully considered but is most respectfully traversed for the reasons of record and in view of the further amendments to the claims.

The rejection of claims 4 and 8 as being unpatentable over US Patent No. 6,890,863 (referred to as '863 hereinafter) in view of US Patent No. 5,010,032 (referred to as '032 hereinafter) as applied to claims 1-3 above, and further in view of US Patent 6,784,111 (referred to as '111 hereinafter) for the reasons as discussed in the previous office action has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the comments already of record and the following

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comments.

Concerning the Examiner's reasoning that '111 discloses the claimed combinations of perfluorocarbons, Applicants wish to point out that in fact, '111 merely refers to the gas  $\text{CH}_2\text{F}_2$ ,  $\text{CF}_4$ ,  $\text{CHF}_3$ ,  $\text{CH}_3\text{F}$ ,  $\text{C}_2\text{F}_6$ ,  $\text{C}_2\text{HF}_5$ ,  $\text{C}_3\text{F}_8$ ,  $\text{C}_4\text{F}_8$ ,  $\text{C}_4\text{F}_6$  and  $\text{C}_5\text{F}_8$  and their mixtures, but has no teaching or suggestion on any specific gas mixtures as required by the presently claimed invention. Moreover there is no motivation to modify this teaching, absent Applicants teaching and arrive at the presently claimed invention. Applicants' disclosure may not be used as a teaching reference. Moreover, obvious to try is not the standard of obviousness under 35 USC 103.

Further, from the disclosure of the mixture of a hydrofluorocarbon and a selectivity compound consisting of carbon and fluorine in '863, and the disclosure of the gas combination of  $\text{CHF}_3 + \text{C}_2\text{F}_6 + \text{O}_2 + \text{He}$  in '032, it is typical in the prior art to combine a hydrofluorocarbon and a perfluorocarbon as etchant gases. Thus, when making use of various gases of '111 with reference to the disclosures of '863 and '032, one of ordinary skill should tend to combine hydrofluorocarbons (such as  $\text{CH}_2\text{F}_2$ ,  $\text{CHF}_3$ ,  $\text{CH}_3\text{F}$ , etc.) and perfluorocarbons (such as  $\text{CF}_4$ ,  $\text{C}_2\text{F}_6$ ,  $\text{C}_3\text{F}_8$ , etc.) but should have no motivation to combine two perfluorocarbons as the claimed combinations. As a result, although the gases disclosed in '111 are known etchants, it is absolutely not obvious to one of ordinary skill to obtain the claimed combinations from said gases. The Examiner's contentions that the combination of said gases for the claimed use is prima facie obvious to one of ordinary skill in the art, and the combination of two perfluorocarbons of said gases would require one to have a higher ration than the other, should be untenable and improper. Accordingly, it is most respectfully requested that these rejections be withdrawn.

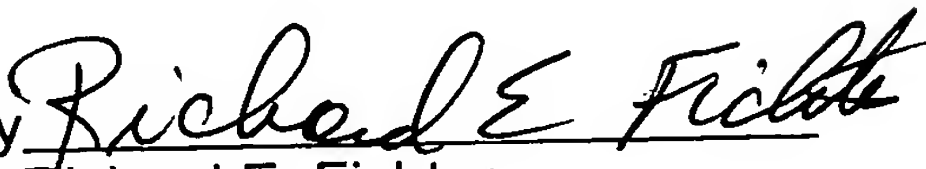
In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are

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most respectfully requested.

Respectfully submitted,

BACON & THOMAS, PLLC

By   
Richard E. Fichter  
Registration No. 26,382

625 Slaters Lane - 4th Floor  
Alexandria, Virginia 22314  
Phone: (703) 683-0500  
Facsimile: (703) 683-1080

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